

Requirement dated January 4, 1995, the Examiner found that the claims directed to a hydraulic drive system for an all wheel drive vehicle were directed to a separate invention from that set forth in the claims directed to a drive system for a riding mower, and required restriction between these two inventions. The claims being prosecuted in this application are those directed to a drive system for a riding mower or a turf maintenance vehicle.

While many of the references in the International Search Report are directed to vehicles generally, as opposed to riding mowers or turf maintenance vehicles, no attempt has been made by the undersigned attorney to segregate out any such references. All of the references cited in the International Search Report, with the exception of U.S. Patent 5,199,525 to Schueler which is already of record, are being submitted to the Examiner with the Supplemental Information Disclosure Statement and are discussed therein.

The claims currently pending in this application are believed to be patentable over the new art being cited in the Supplemental Information Disclosure Statement.

Supplemental Amendments

Please amend the claims additionally as follows:

Revise claim 9 as follows:

1/9. (Twice Amended) A hydraulically driven riding mower having all wheel drive, which comprises:

- (a) a frame having an engine;
- (b) a plurality of ground engaging wheels attached to the frame for movably supporting the frame for movement over the ground, the wheels comprising a first pair

of wheels carried adjacent a front end of the frame and a single rear wheel spaced on the frame from the front wheels and carried adjacent a rear end of the frame to provide a tricycle wheel configuration;

(c) a plurality of cutting units carried on the frame for mowing grass, wherein the cutting units may be engaged with the ground during a mowing operation and when so engaged have at least some of their weight carried by the ground and not the frame; and

(d) a hydraulic drive system for driving the ground engaging wheels of the frame, which drive system comprises:

(i) a source of pressurized fluid which provides a pressurized fluid flow that is available for driving the ground engaging wheels;

(ii) individual hydraulic drive motors operatively engaged to each of the ground engaging wheels of the frame; and

(iii) means for connecting the hydraulic motors to the source of pressurized fluid in the following manner:

the wheel drive motor for the rear wheel is connected in series to the fluid source and to the wheel drive motors for the front wheels in a manner that causes the pressurized fluid flow to pass substantially in its entirety through the wheel drive motor for the rear wheel to provide a maximum tractive effort on the rear wheel for a given pressurized fluid flow regardless of wheel slippage conditions on the front wheels; and

the wheel drive motors for the front wheels being connected to each other in parallel in a manner that causes the pressurized fluid flow to be split when passing through the wheel drive motors for the front wheels.

Revise claim 20 as follows:

9 ~~20.~~ (Thrice Amended) A hydraulically driven riding mower having all wheel drive, which comprises:

(a) a frame having an engine;  
(b) a plurality of ground engaging wheels attached to the frame for movably supporting the frame for movement over the ground, the wheels comprising a first pair of wheels carried adjacent a front end of the frame and at least one rear wheel spaced on the frame from the front wheels and carried adjacent a rear end of the frame;

(c) at least one cutting unit carried on the frame for mowing grass, wherein the cutting unit(s) may be engaged with the ground during a mowing operation and when so engaged have at least some of their weight carried by the ground and not the frame; and

(d) a hydraulic drive system for driving the ground engaging wheels of the frame, which drive system comprises:

(i) a source of pressurized fluid which provides a pressurized fluid flow that is available for driving the ground engaging wheels;

(ii) individual hydraulic drive motors operatively engaged to each of the ground engaging wheels of the frame; and

(iii) means for connecting the hydraulic motors to the source of pressurized fluid in the following manner:

the wheel drive motor(s) for the rear wheel(s) being connected in series to the fluid source and to the wheel drive motors for the front wheels in a manner that causes the pressurized fluid flow to pass substantially in its

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entirety through each wheel drive motor for each rear wheel to provide a maximum tractive effort on each rear wheel for a given pressurized fluid flow regardless of wheel slippage conditions on the front wheels; and

the wheel drive motors for the front wheels are connected to each other in parallel in a manner that causes the pressurized fluid flow to be split when passing through the wheel drive motors for the front wheels.

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Revise claim 26 as follows:

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~~26~~ (Thrice Amended) A hydraulically driven turf maintenance vehicle having all wheel drive, which comprises:

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- (a) a frame having an engine;
  - (b) a plurality of ground engaging wheels attached to the frame for movably supporting the frame for movement over the ground, the wheels comprising a first pair of wheels carried adjacent a first end of the frame and at least one wheel spaced on the frame from the first pair of wheels carried adjacent a second end of the frame;
  - (c) at least one operating unit carried on the frame for performing a turf maintenance operation; and
  - (d) a hydraulic drive system for driving the ground engaging wheels of the frame, which drive system comprises:

- (i) a source of pressurized fluid which provides a pressurized fluid flow that is available for driving the ground engaging wheels;

- (ii) individual hydraulic drive motors operatively engaged to each of the ground engaging wheels of the frame; and

- (iii) means for connecting the hydraulic motors to the source of pressurized fluid in the following manner:

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the wheel drive motor(s) for the wheel(s) on the second end of the frame being connected in series to the fluid source and to the wheel drive motors for the wheels on the first end of the frame in a manner that causes the pressurized fluid flow to pass substantially in its entirety through each wheel drive motor for each wheel on the second end of the frame to provide a maximum tractive effort on each wheel on the second end of the frame for a given pressurized fluid flow regardless of wheel slippage conditions on the wheels on the first end of the frame; and

the wheel drive motors for the wheels on the first end of the frame being connected to each other in parallel in a manner that causes the pressurized fluid flow to be split when passing through the wheel drive motors for the wheels on the first end of the frame.

Claim 13, Line 5, change "vehicle" to --mower--.

Claim 33, Line 1, change "claim 33" to --claim 32--.

Add the following new claims:

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--34. A vehicle as recited in claim 15, wherein the engine is mounted on the second end of the frame generally above the wheel(s) carried on the second end of the frame.

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35. A hydraulically driven turf maintenance vehicle having all wheel drive, which comprises:

- (a) a frame having an engine;
- (b) a plurality of ground engaging wheels attached to the frame for movably supporting the frame for movement over the ground, the wheels comprising a first pair of wheels carried adjacent a first end of the frame and at

least one wheel spaced on the frame from the first pair of wheels carried adjacent a second end of the frame;

(c) at least one operating unit carried on the frame for performing a turf maintenance operation;

(d) a hydraulic drive system for driving the ground engaging wheels of the frame, which drive system comprises:

(i) a source of pressurized fluid which provides a pressurized fluid flow that is available for driving the ground engaging wheels;

(ii) individual hydraulic drive motors operatively engaged to each of the ground engaging wheels on the first end of the frame, and at least one individual hydraulic drive motor operatively engaged to the ground engaging wheel(s) on the second end of the frame; and

(iii) means for connecting the hydraulic motors to the source of pressurized fluid in the following manner:

the wheel drive motor(s) for the wheel(s) on the second end of the frame being connected in series to the fluid source and to the wheel drive motors for the wheels on the first end of the frame in a manner that causes the pressurized fluid flow to pass substantially in its entirety through each wheel drive motor for the wheel(s) carried on the second end of the frame to provide a maximum tractive effort on each wheel on the second end of the frame for a given pressurized fluid flow regardless of wheel slippage conditions on the wheels on the first end of the frame; and

the wheel drive motors for the wheels on the first end of the frame being connected to each other in parallel in a manner that causes the pressurized fluid flow to be split when passing through the wheel drive motors for the wheels on the first end of the frame; and